#### **Habitat Grouping: Tidal Marsh**

Macrogroup Intertidal Tidal Marsh (peat-forming)

Habitat System Acadian Coastal Salt Marsh

Habitat System Coastal Plain Tidal Marsh

Species Associated with this Grouping Total SGCN: 1: 5 2: 14 3: 4 Total SGCN (primary habitat): 1: 2 2: 2 3: 1

Class	Actinopterygii (Ray-finned Fishes)	SGCN Category
Species	Anguilla rostrata (American Eel)	2
Class	Aves (Birds)	SGCN Category
Species	Ammodramus caudacutus (Saltmarsh Sparrow)	1
Species	Ammodramus nelsoni (Nelson's Sparrow)	2
Species	Ardea herodias (Great Blue Heron)	2
Species	Asio flammeus (Short-eared Owl)	2
Species	Aythya marila (Greater Scaup)	2
Species	Calidris pusilla (Semipalmated Sandpiper)	2
Species	Chaetura pelagica (Chimney Swift)	2
Species	Coturnicops noveboracensis (Yellow Rail)	2
Species	Egretta caerulea (Little Blue Heron)	3
Species	Egretta thula (Snowy Egret)	3
Species	Hirundo rustica (Barn Swallow)	2
Species	Ixobrychus exilis (Least Bittern)	1
Species	Numenius phaeopus (Whimbrel)	2
Species	Nycticorax nycticorax (Black-crowned Night-heron)	2
Species	Progne subis (Purple Martin)	2
Species	Sternula antillarum (Least Tern)	1
Species	Tachycineta bicolor (Tree Swallow)	2
Species	Tringa flavipes (Lesser Yellowlegs)	1
Class	Gastropoda (Aquatic And Terrestrial Snails)	SGCN Category
Species	Floridobia winkleyi (New England Silt Snail)	3
Class	Insecta (Insects)	SGCN Category
Species	Cicindela marginata (Salt Marsh Tiger Beetle)	2
Species	Spartiniphaga inops (Spartina Borer Moth)	3
Class	Merostomata (Horseshoe Crabs And Sea Scorpions)	SGCN Category
Species	Limulus polyphemus (Horseshoe Crab)	1
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**Habitat Stressors:** 

Habitat-specific stressors are assigned to the Habitat Macrogroup(s) listed in the Habitat Grouping above. Habitat Macrogroup reports can be found in Maine's 2015 Wildlife Action Plan: Element 2, Table 2-3. Click on the Habitat Macrogroup of interest to launch a habitat based report summarizing relevant stressors and associated SGCN.

#### **Conservation Actions Assigned to this Habitat Grouping:**

Report Date: January 13, 2016

Habitat Grouping: Tidal Marsh

**Conservation Action Category:** Habitat Management **Biological Priority:** critical Type: new

Find ways to support culvert replacement in or near intertidal, subtidal, and tidal marsh habitats using best management

practices

Stressor(s) Addressed By This Conservation Action

Roads and Railroads, Dams and Water Management-Use

Category: Habitat Management **Biological Priority:** critical Type: on-going **Conservation Action** 

Work with land conservation organizations and private landowners to conserve tidal marshes, adjacent uplands, and marsh

migration corridors

Stressor(s) Addressed By This Conservation Action

Commercial and Industrial Areas, Utility and Service Lines, Housing and Urban Areas, Livestock Farming and Ranching, A

and Perennial Non-timber crops

**Biological Priority:** critical **Conservation Action Category:** Habitat Management Type: on-going

Conserve lands that are upland and inland of marshes to allow for marsh migration and maintain habitat connectivity

Stressor(s) Addressed By This Conservation Action

**Habitat Shifting or Alteration** 

**Category:** Habitat Management **Biological Priority:** critical **Conservation Action** Type: on-going

Decommission remnant or unused roads and other structures in or near tidal marsh, intertidal, and subtidal habitats

Stressor(s) Addressed By This Conservation Action

Roads and Railroads, Dams and Water Management-Use

Biological Priority: high **Conservation Action Category:** Habitat Management Type: on-going

Encourage installation of lower cost SGCN-friendly infrastructure in and near subtidal, intertidal, and tidal marsh habitats

through technology development and transfer of technology

Stressor(s) Addressed By This Conservation Action

Roads and Railroads, Dams and Water Management-Use

**Category:** Habitat Management **Biological Priority:** high **Conservation Action** Type: on-going

Time dredging projects in subtidal and tidal marsh habitats to minimize harm to SGCN based on migration and spawning cycles

Stressor(s) Addressed By This Conservation Action

**Shipping Lanes** 

**Conservation Action Category:** Habitat Management **Biological Priority:** moderate Type: new

Employ technology to reduce nutrient discharge adjacent to tidal marshes, e.g. storm water remediation measures including

SmartSponge, infiltration chambers, and storm water settling areas

Stressor(s) Addressed By This Conservation Action

Domestic and Urban Waste Water, Agricultural and Forestry Effluents, Industrial and Military Effluents, Storms and Floc

**Category:** Habitat Management **Biological Priority:** moderate Type: on-going **Conservation Action** 

Maintain or create corridors between tidal marshes and other habitats used by tidal marsh SGCN

Stressor(s) Addressed By This Conservation Action

Annual and Perennial Non-timber crops, Livestock Farming and Ranching, Housing and Urban Areas, Commercial and In-

Areas, Utility and Service Lines

**Conservation Action Category:** Habitat Management **Biological Priority:** moderate Type: on-going

Re-route existing trails and/or boardwalks around tidal marshes to minimize foot traffic and disturbance to SGCN habitats

Stressor(s) Addressed By This Conservation Action

**Recreational Activities** 

Report Date: January 13, 2016

Habitat Grouping: Tidal Marsh

**Conservation Action** 

Category: Policy

**Biological Priority:** critical

Type: new

Report Date: January 13, 2016

Provide incentives for building Stream Smart structures and road crossings in or near intertidal, subtidal, and tidal marsh habitats that allow for changing environmental conditions such as sea level rise and increased flooding

Stressor(s) Addressed By This Conservation Action

Roads and Railroads, Dams and Water Management-Use

Conservation Action Category: Policy

Biological Priority: high

Type: new

Implement voluntary best standards for road/stream crossings in or near tidal marshes

Stressor(s) Addressed By This Conservation Action

Roads and Railroads, Dams and Water Management-Use

**Conservation Action** 

Category: Policy

**Biological Priority:** high

Type: new

Site shipping lanes and dredging projects to minimize negative impacts to intertidal and subtidal SGCN and their habitats

Stressor(s) Addressed By This Conservation Action

**Shipping Lanes** 

**Conservation Action** 

Category: Policy

**Biological Priority:** high

Type: on-going

Continue to improve rapid response for oil and gas spills in intertidal and subtidal habitats, including state agencies efforts to have most up-to-date species maps, rapid response protocols in place, and regular scenario training

Stressor(s) Addressed By This Conservation Action

**Shipping Lanes** 

**Conservation Action** 

Category: Policy

**Biological Priority:** high

Type: on-going

Increase capacity for enforcement of current laws and regulations regarding proper infrastructure (e.g., roads, dams, utility lines, shipping lanes) construction, maintenance, water quality, and fish passage in tidal marsh, intertidal, and subtidal SGCN habitats

Stressor(s) Addressed By This Conservation Action

Dams and Water Management-Use, Roads and Railroads

**Conservation Action** 

Category: Policy

**Biological Priority:** moderate

Type: on-going

Increase awareness about invasive species and problems following the introduction of invasive species in the shipping, transportation, and other industries to prevent introductions and spread of invasive species in intertidal and subtidal habitats

Stressor(s) Addressed By This Conservation Action

Invasive Non-native-Alien Species-Diseases, Problematic Native Species-Diseases

**Conservation Action** 

Category: Policy

**Biological Priority:** moderate

Type: on-going

Develop and provide model best practice maintenance and operating procedures (e.g., maintenance frequency, replacement schedules) for municipal, state, and private managers of infrastructure in tidal marshes

Stressor(s) Addressed By This Conservation Action

Roads and Railroads, Dams and Water Management-Use

**Conservation Action** 

Category: Public Outreach

**Biological Priority:** high

Type: on-going

Encourage partnership projects among transportation agencies, utility companies, etc. to facilitate fish passage and maintain connectivity in or near subtidal, intertidal, and tidal marsh habitats especially in cases where structures have different purposes for different users

Stressor(s) Addressed By This Conservation Action

Dams and Water Management-Use, Roads and Railroads

Conservation Action Category: Public Outreach

**Biological Priority:** high

Type: on-going

Provide education and outreach through local meetings and trainings (e.g., Stream Smart) on techniques, problems and ecological effects of dams, roads, shipping lanes, and utility corridors on intertidal, subtidal, and tidal marsh habitats and publicize completed projects

Report Date: January 13, 2016

Habitat Grouping: Tidal Marsh

Stressor(s) Addressed By This Conservation Action

Roads and Railroads, Dams and Water Management-Use

**Conservation Action Category:** Public Outreach **Biological Priority:** moderate Type: new

Research the efficacy of tidal marsh conversion

Stressor(s) Addressed By This Conservation Action

Annual and Perennial Non-timber crops, Livestock Farming and Ranching, Housing and Urban Areas, Commercial and In-

Areas, Utility and Service Lines

**Conservation Action Category:** Public Outreach **Biological Priority:** moderate Type: new

Provide outreach and education to planners, developers, and homeowners about best management practices for site design, property maintenance, and landscaping adjacent to tidal marshes and their buffers

Stressor(s) Addressed By This Conservation Action

Housing and Urban Areas, Commercial and Industrial Areas, Utility and Service Lines, Livestock Farming and Ranching, A

and Perennial Non-timber crops

**Conservation Action Category:** Public Outreach **Biological Priority:** moderate Type: new

Provide incentives for converting land into tidal marsh or protecting existing tidal marsh

Stressor(s) Addressed By This Conservation Action

Livestock Farming and Ranching, Annual and Perennial Non-timber crops, Housing and Urban Areas, Commercial and In-

Areas, Utility and Service Lines

**Biological Priority:** moderate **Conservation Action Category:** Public Outreach Type: on-going

Provide outreach and education to homeowners and businesses to reduce their wastewater and storm water inputs into and

effects on tidal marshes, including increased buffers and minimal fertilizer use

Stressor(s) Addressed By This Conservation Action

Agricultural and Forestry Effluents, Domestic and Urban Waste Water, Industrial and Military Effluents, Storms and Floc

**Conservation Action Category:** Public Outreach **Biological Priority:** moderate Type: on-going

Provide outreach and education to homeowners and municipalities regarding proper installation, maintenance, and removal of

septic systems

Stressor(s) Addressed By This Conservation Action

Industrial and Military Effluents, Storms and Flooding, Agricultural and Forestry Effluents, Domestic and Urban Waste W

**Biological Priority:** moderate Category: Public Outreach Type: on-going **Conservation Action** 

Increase outreach and education on preventing the spread of invasive/problematic species and diseases in intertidal, subtidal,

and tidal marsh habitats

Stressor(s) Addressed By This Conservation Action

Invasive Non-native-Alien Species-Diseases, Problematic Native Species-Diseases

**Conservation Action** Category: Public Outreach **Biological Priority:** moderate Type: on-going

Deploy signage to notify recreationalists to the sensitivity of tidal marsh habitat

Stressor(s) Addressed By This Conservation Action

**Recreational Activities** 

**Conservation Action** Category: Research **Biological Priority:** moderate Type: on-going

Research and model marsh migration scenarios resulting from sea level rise

Stressor(s) Addressed By This Conservation Action

**Habitat Shifting or Alteration** 

**Conservation Action Category:** Survey and Monitoring Biological Priority: high Type: on-going

Build upon and coordinate with existing monitoring efforts to establish a long term tidal marsh monitoring program, with emphasis on assessing sediment dynamics in the context of sea level rise

### Habitat Grouping: Tidal Marsh

#### Stressor(s) Addressed By This Conservation Action

Annual and Perennial Non-timber crops, Livestock Farming and Ranching, Housing and Urban Areas, Commercial and Indexes, Utility and Service Lines

**Conservation Action** 

**Category:** Survey and Monitoring

**Biological Priority:** high

Type: on-going

Report Date: January 13, 2016

Develop monitoring systems and rapid response plans to prevent the colonization of invasive/problematic species and diseases in intertidal, subtidal, and tidal marsh habitats

#### Stressor(s) Addressed By This Conservation Action

Problematic Native Species-Diseases, Invasive Non-native-Alien Species-Diseases

**Conservation Action** 

**Category:** Survey and Monitoring

**Biological Priority:** moderate

Type: on-going

Continue and expand monitoring programs that track tidal marsh changes over time

### Stressor(s) Addressed By This Conservation Action

Habitat Shifting or Alteration

### **Species Conservation Actions:**

Conservation actions that may benefit species associated with this habitat grouping can be found in Maine's 2015 Wildlife Action Plan: Element 1, Table 1-3. Click on the species of interest to launch a species based report summarizing relevant conservation actions and associated habitats.

The Wildlife Action Plan was developed through a lengthy participatory process with state agencies, targeted conservation partners, and the general public. The Plan is non-regulatory. The species, stressors, and voluntary conservation actions identified in the Plan complement, but do not replace, existing work programs and priorities by state agencies and partners.